



*S. P. Smith*  
12-11-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/028,730  
Applicant : Michael Collins, et al  
Filed : 10/19/2001  
TC/A.U. : 3746  
Examiner : Han L. Liu

Confirmation No. 4112

Docket No. : 00-682  
Customer No. : 34704

#7/Reg & Pt.  
Racoon  
w/Decl.

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

**RECEIVED**

DEC 10 2003

TECHNOLOGY CENTER R3700

**RESPONSE TO OFFICIAL ACTION**

Dear Sir:

This paper is submitted responsive to the official action mailed July 1, 2003. Reconsideration of the application in light of the accompanying remarks and amendments is respectfully requested.

In the aforesaid action, the examiner objected to the drawings and rejected the claims over various combinations of prior art.

In connection with the objections to the drawings, accompanying this response is a submission of formal drawings which responds to the examiner's objection as noted in the notice of draftsperson's patent drawing review. It is respectfully submitted that the drawings in this case are now in good form.

In connection with the art rejection, the examiner had rejected all claims as either anticipated or obviated utilizing U.S. Patent No. 6,406,265 to Hahn et al. as a reference under 35 U.S.C 102 (e). It is respectfully submitted that this document is not prior art as attested by the enclosed declaration from the inventors, wherein it is established that the present invention was made before the filing date of the Hahn et al. reference.

Based upon the foregoing, since Hahn et al is not prior art, it is respectfully submitted that claims 1-34 are patentable over the art of record.

Furthermore, even if Hahn et al were prior art, the claims of the present application are submitted to define patentably thereover.

For example, independent claim 14 specifies that the control member is adapted to control a liquid injection valve on the compressor based upon results of a comparison between discharge temperature and a discharge temperature set point. Specifically, the control member is adapted to open the liquid injection valve when the discharge temperature is greater than the set point.

The examiner relied upon a combination of Hahn et al and U.S. Patent No. 5,946,925 to William et al.

The examiner states that Hahn et al make no disclosure as to the control of injection valve as set forth in claim 14, and instead relies upon the teaching of Williams et al. It is respectfully submitted that Williams et al does not disclose control of an injection valve as is set forth in claim 14. Specifically, no disclosure is made as to the monitoring of discharge temperature and control of an injection valve based upon same so as to maintain temperature below the discharge temperature set point.

The examiner states that it would be obvious to provide a liquid injection valve and control same by microprocessor on the basis of the combination of Hahn and Williams for the prevention of accumulation of refrigerant liquid in front of the solenoid valve. It is respectfully submitted that this is an entirely different goal suggested by the examiner, and that any combination following this line of reasoning would not result in the claimed subject matter drawn to maintaining discharge temperature below the discharge temperature set point through controlled operation of the injection valve.

This argument is submitted to support allowance of claims 13 and 15 over the art of record as well.

It is noted that the enclosed declaration from the inventors is unsigned. Signatures are being obtained on this declaration, and the signed document will be forwarded by supplemental response in due course.

It is believed that no additional fees are due in connection with this submission. If, however any fees are due, please charge same to deposit account 02-0184.

Respectfully submitted,

By 

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December 1, 2003

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Commissioner for Patents, P.O. Box 1460, Alexandria, VA 22313" on December 1, 2003.

  
Natalie M. Pimentel